

 Daybreak Power

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Vienna, VA 22180  
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[jim@daybreakpower.com](mailto:jim@daybreakpower.com)  
703-624-4971

July 1, 2019

Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, D.C. 20426

**Re: Application for Preliminary Permit  
Navajo Energy Storage Station Pumped Storage Project**

Dear Secretary Bose:

Pursuant to 18 CFR § 4.32 and 4.81 of the Federal Energy Regulatory Commission's regulations, please find enclosed Navajo Energy Storage Station LLC's "Application for a Preliminary Permit" for the proposed Navajo Energy Storage Station project (Project). The proposed facility is a 2,210 megawatt (MW) pumped storage hydroelectric facility located near Lake Powell on Navajo Nation lands in San Juan County, Utah.

The project utilizes Lake Powell as the lower reservoir and involves construction of an upper reservoir, water conveyance, generation and transmission facilities. When completed, the project will greatly enhance electric reliability and provide numerous benefits to consumers in the Southwest by facilitating the cost-effective integration of renewable energy resources.

The proposed project also would provide significant jobs and economic benefits as the Navajo Nation transitions from heavy reliance on the soon-to-be retired Navajo Generating Station to a future of clean energy resources.

We have sent copies of the application to FERC's San Francisco regional office; the Bureau of Reclamation's Power Resources Office in Denver and field office in Utah; to the National Park Service headquarters in Washington, D.C.; and to the Navajo Nation headquarters in Arizona. Please contact the undersigned if you have any questions about the application. We look forward to working with you.

Sincerely,

Jim Day  
CEO, Daybreak Power Inc.

**Before the Federal Energy Regulatory Commission**

**Application for Preliminary Permit**

Navajo Energy Storage Station Project  
Project Number \_\_\_\_\_

Navajo Energy Storage Station LLC  
113 Moore Ave. SW  
Vienna, VA 22180  
703-624-4971

July 1, 2019

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## Attachments

Land Description Form (FERC Form 587)

## Initial Statement

*Pursuant to 18 CFR § 4.81, each application for a preliminary permit must include the following initial statement and numbered exhibits containing the information and documents specified:*

*(a) Initial Statement:*

### **Before the Federal Energy Regulatory Commission**

#### *Application for Preliminary Permit*

- 1) Navajo Energy Storage Station LLC applies to the Federal Energy Regulatory Commission (FERC or Commission) for a preliminary permit for the proposed Navajo Energy Storage Station Pumped Storage Project (NESS or Project), as described in the attached exhibits. This application is made in order that the applicant may secure and hold priority of application for a license for the project under Part I of the Federal Power Act while it obtains the data and performs actions necessary to determine the feasibility of the project and support an application for a license.

Because the project would utilize Bureau of Reclamation (BOR) facilities at Glen Canyon Dam and Lake Powell as the proposed lower reservoir, the applicant requests that FERC consult with BOR to determine jurisdiction over the proposed project pursuant to the 1992 memorandum of understanding between the two agencies.

- 2) *The location of the project is:*

<i>State or territory:</i>	Utah
<i>County:</i>	San Juan County
<i>Township or nearby town:</i>	Page, Arizona
<i>Stream or body of water:</i>	Lake Powell

- 3) *The exact name, business address, and telephone number of the applicant are:*

Navajo Energy Storage Station LLC  
113 Moore Ave. SW  
Vienna, VA 22180  
703-624-4971

*The exact name and business address of each person authorized to act as agent for the applicant in this application is:*

Jim Day  
CEO  
Daybreak Power Inc.  
113 Moore Ave. SW  
Vienna, VA 22180  
703-624-4971  
[jim@daybreakpower.com](mailto:jim@daybreakpower.com)

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COO  
Daybreak Power Inc.  
4242 East West Highway #620  
Chevy Chase, MD 20815  
757-493-1992  
[joyce@daybreakpower.com](mailto:joyce@daybreakpower.com)

- 4) Navajo Energy Storage Station LLC is a limited liability company organized and existing under the law of the Commonwealth of Virginia and is not claiming preference under Section 7(a) of the Federal Power Act. The company is 100 percent owned by Daybreak Power Inc., which is incorporated in the Commonwealth of Virginia.
- 5) *The proposed term of the requested permit is 36 months.*
- 6) *If there is any existing dam or other project facility, the applicant must provide the name and address of the owner of the dam and facility. If the dam is federally owned, or operated, provide the name of the agency.*

Glen Canyon Dam is operated by the U.S. Bureau of Reclamation.

Upper Colorado Regional Office  
Bureau of Reclamation  
125 South State Street, Room 8100  
Salt Lake City, UT 84138-1147

Lake Powell falls under the jurisdiction of the National Park Service.

Glen Canyon National Recreation Area  
National Park Service  
PO Box 1507  
Page AZ 86040

## Information Required by 18 CFR Section 4.32(a)

- 1) *For a preliminary permit or license, identify every person, citizen, association of citizens, domestic corporation, municipality, or state that has or intends to obtain and will maintain any proprietary right necessary to construct, operate, or maintain the project:*

Navajo Energy Storage Station LLC  
113 Moore Ave. SW  
Vienna, VA 22180

- 2) *For a preliminary permit or license, identify (providing names and mailing addresses):*

- i) *Every county in which any part of the project, and any federal facilities that would be used by the project, would be located:*

Kenneth Maryboy  
Chairman  
San Juan County  
P.O. Box 9  
Monticello UT 84535  
435-587-3225

James Jayne  
County Manager  
Coconino County  
219 E. Cherry Ave  
Flagstaff AZ 86001

- ii) *Every city, town, or similar local political subdivision:*

- A) In which any part of the project, and any Federal facilities that would be used by the project, would be located:

None.

- B) *That has a population of 5,000 or more people and is located within 15 miles of the project dam:*

Michael Celaya  
City Manager  
Page City Hall  
697 Vista Avenue  
Page, AZ 86040

iii) *Every irrigation district, drainage district, or similar special purpose political subdivision:*

A) *In which any part of the project, and any Federal facilities that would be used by the project, would be located:*

The project is not located in any Irrigation district.

B) *That owns, operates, maintains, or uses any project facilities or any Federal facilities that would be used by the project.*

None.

iv) *Every other political subdivision in the general area of the project that there is a reason to believe would likely be interested in, or affected by, the application:*

National Park Service  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

v) *All Indian tribes that may be affected by the project:*

The applicant has identified the following Indian tribes that may have an interest in or could be affected by the Project:

Jonathan Nez  
Chairman, Navajo Nation  
100 Parkway  
PO Box 7440  
Window Rock, AZ 86515

Timothy L. Nuvangyaoma  
Chairman, Hopi Tribal Council  
123 Main Street  
Kykotsmovi Village, AZ 86039

## Exhibit 1: Description of the Proposed Project

*18 CFR Section 4.81(b) Exhibit 1 must contain a description of the proposed project, specifying and including, to the extent possible:*

- 1) *The number, physical composition, dimensions, general configuration and, where applicable, age and condition, of any dams, spillways, penstocks, powerhouses, tailraces, or other structures, whether existing or proposed, that would be part of the project:*

The proposed project is a pumped storage hydroelectric facility, which would involve construction of a new upper reservoir, water conveyance, generation and transmission facilities that would connect to Lake Powell, which would function as the lower reservoir, and to nearby transmission assets. The upper reservoir would not impede a perennial water source, and the impact on the water levels of the much larger Lake Powell would be negligible. Water to fill the upper reservoir and circulate daily through the system would come from Lake Powell. Initial screening and consultation with the Bureau of Reclamation (BOR), which oversees water rights and operates the existing hydroelectric facilities at Glen Canyon Dam, indicate operation of the proposed pumped storage facility is likely to be compatible with current BOR operations at the site. The project proponent will continue studies and consultation with the Navajo Nation—on whose land the project would be built—as well as BOR, the National Park Service and other stakeholders on the water usage and other operational issues.

### Upper Dam and Reservoir

The 15,150 foot dam for the upper reservoir would be a maximum 131-feet high rockfill concrete-face structure, with an estimated dam fill volume of 10.57 million cubic yards (CY). The maximum upper reservoir elevation would range between a minimum 4,950 feet (msl) to a maximum 5,000 msl. The estimated usable volume for the upper reservoir would be approximately 18,600 acre feet (af). Further engineering studies will inform decisions on seepage control, design of a spillway, surface water inflow and other issues.

### Lower Dam and Reservoir

Lake Powell would serve as the lower reservoir. Its elevation fluctuates from a maximum of 3,700 msl to a minimum of 3,550 msl, with a usable volume of 20.32 million af. This results in an upper reservoir/lower reservoir volume ratio of less than 1 percent.

Lake Powell was formed upon completion of the Glen Canyon Dam in 1966. The lake is one of the largest man-made reservoirs in the U.S. with a capacity of 27 million af. The dam and reservoir span the border between Utah and Arizona. Glen Canyon Dam's authorized purpose is to help ensure an equitable distribution of water between the states of the Upper Colorado River Basin and the Lower Basin; second, it guarantees water delivery to the Lower Basin states without the need for rationing; and third, it provides power generation.

The National Park Service operates the Glen Canyon National Recreation Area, whose lands follow the north shore of the lake. The Navajo Nation controls lands on the southern shore, where the proposed project would be located.

#### Inlet/Outlet Structures

Further studies will inform the types of vertical intake for the upper reservoir and shoreline intake at the lower reservoir. The project proponent expects the intake from Lake Powell will be well below the minimum surface elevation to account for the possibility of decreasing water volumes in the likely event of future drought conditions driven by climate change.

#### Powerhouse

The project will include a new powerhouse, intake/outlet structures, water conveyance tunnels, transmission facilities and supporting infrastructure.

The powerhouse would accommodate a pump turbine/generation system with a design head of 1,350 feet. It would include eight variable-speed pump turbine/generation units with a combined capacity of 2,210 megawatts that could provide 10 hours of continuous generation.

#### Surge control facilities

Further study will inform the design of the surge control facilities. Preliminary studies indicate a surge tank would not be required.

#### Water conveyance

The water to be used in the facility would come from Lake Powell. The water will be conveyed between the upper and lower reservoirs through an approximately 6,550-feet conveyance tunnel. The project will include a single 35-feet diameter headrace tunnel, eight 11-feet diameter penstocks, eight 15-feet diameter draft tubes and two 31-feet diameter tailrace tunnels. Further studies will inform the system design.

Dimensions of the water conveyance system:

Vertical Shaft	1,350 ft
Power Tunnel	4,160 ft
Penstocks (8)	338 ft
Draft Tubes (8)	135 ft
Tailrace Tunnel	1,040 ft
Total Length of Water Conveyance	6,550 ft

(2) *The estimated number, surface area, storage capacity, and normal maximum surface elevation (mean sea level) of any reservoirs, whether existing or proposed, that would be part of the project:*

## Proposed Project Reservoirs:

	<u>Upper Reservoir</u>	<u>Lower Reservoir</u>
Water surface elevation (ft msl)	5,000	3,700
Usable storage capacity (acre feet)	18,600	20,320,000
Surface area (acres)	419	161,400

(3) *The estimated number, length, voltage, interconnections and, where applicable, age and condition, of any primary transmission lines whether existing or proposed, that would be part of the project:*

A transmission line rated at 500 kilovolts (kV) would transmit power to and from the facility. The line will travel approximately 18 miles in a southwesterly direction to a site near the existing Navajo Generating Station to interconnect with the existing 230 kV line owned by Western Area Power Administration (WAPA).

The project proponent will conduct further studies and consultation with BOR and WAPA to further inform transmission requirements.

(4) *The total estimated average annual energy production and installed capacity (provide only one energy and capacity value), the hydraulic head for estimating capacity and energy output, and the estimated number, rated capacity, and, where applicable, the age and condition, of any turbines and generators, whether existing or proposed, that would be part of the project works:*

Generating Equipment

Installed capacity	2,210 MW
Number of units	8 units
Unit rated capacity	276 MW each
Generating discharge	22,457 cfs
Static head	1,350 feet
Avg. annual generation	3,365 GW-hours

Further studies will inform the final capacity of the proposed project.

(5) *All lands of the United States that are enclosed within the proposed project boundary described under paragraph (d)(3)(i) of this section, identified and tabulated on a separate sheet by legal subdivisions of a public land survey of the affected area, if available. If the project boundary includes lands of the United States, such lands must be identified on a completed land description form (FERC Form 587), provided by the Commission. The project location must identify any Federal reservation, Federal tracts, and townships of the public land surveys (or official protractors thereof if unsurveyed). A copy of the form must also be sent to the Bureau of Land Management state office where the project is located:*

The location of the Navajo Energy Storage Station is shown in Figures 3.1, 3.2, 3.3 and 3.4. A table of federal lands is below, and FERC Form 587 is attached.

The project and transmission right-of-way are located on Navajo Nation lands. The site was chosen in part to avoid special use areas and to mitigate other potential conflicts, and the project proponent will work closely with the Navajo Nation in an effort to address its expected interests and concerns.

Owner/Managing Agency	Navajo Nation
Location	San Juan County
State	Utah
Federal Land Acres	N/A
Longitude of approximate center point	-111.172172
Latitude of approximate center point	37.069463

(6) *Any other information demonstrating in what manner the proposed project would develop, conserve, and utilize in the public interest the water resources in the region:*

Renewable energy is growing rapidly in the southwestern United States, with thousands of megawatts of solar capacity expected to come into service in the coming years. Large-scale energy storage will be a key to successfully integrating these renewables in a cost-effective manner that supports grid reliability in the region. BOR has indicated that a pumped storage facility at Lake Powell would be particularly valuable in this respect.

Arizona, California and Nevada, along with other western states, have adopted public policies to expand renewables as part of their aggressive efforts to reduce air pollution and achieve their climate goals. Among these policies are proposals specifically meant to support and expand energy storage, including procurement mandates and “clean peak” standards that would require use of renewable energy resources at periods of peak demand. The proposed project would help the states meet those goals.

The Navajo Energy Storage Station project would efficiently utilize existing water resources in Lake Powell and its close proximity to the transmission infrastructure near Glen Canyon Dam and the Navajo Generating Station to help integrate the fast-growing renewable resources in the area. By recycling existing water resources to produce power when most needed, it would strengthen one of the mandated purposes of Glen Canyon Dam—hydroelectric power generation—while minimizing impacts on or even enhancing the other purposes of river regulation, delivery of water supplies and recreation.

Preliminary screening has identified Lake Powell as offering one of the lowest-cost alternatives for a viable pumped storage project across BOR’s portfolio of assets. Initial cost estimates indicate the Navajo Energy Storage Station project could be built using state-of-the-art variable speed technology at less cost per megawatt than many existing pumped storage facilities (in 2019 dollars), offering power consumers in the region a cost-competitive option for large-scale energy storage.

The project also would utilize water resources to provide essential ancillary services that support grid reliability. The need for these services will grow with the expected retirements of coal- and some gas-fired power plants in the region.

In addition, the Navajo Nation has identified clean energy as a key pillar to its economic development framework. The Navajo Energy Storage Station could be a key project in advancing this goal.

## Exhibit 2 – Description of Proposed Studies

*18 CFR § 4.81(c) Exhibit 2 is a description of the studies conducted or to be conducted with respect to the proposed project, including field studies. Exhibit 2 must supply the following information:*

*(1) General requirement. For any proposed project, a study plan containing a description of:*

- (i) Any studies, investigations, tests, or surveys that are proposed to be carried out, and any that have already taken place, for the purposes of determining the technical, economic, and financial feasibility of the proposed project, taking into consideration its environmental impacts, and of preparing an application for a license for the project:*

### Previously conducted studies

BOR and contractor HDR-CDM in 2014 conducted preliminary screening studies of the proposed pumped storage site, identified by BOR as “Lake Powell 1B.” The study identified the proposed site, developed project configurations, evaluated potential environmental and stakeholder concerns, and included an ACEE Class 5 cost analysis. The project proponent has utilized and will build on elements of the screening study as it conducts further studies for the proposed project.

### Engineering Feasibility

The proponent will conduct further engineering studies of the technical feasibility of the project, as well as economic/commercial studies to inform the final pumping and generation capacity and specifications. We expect these studies and consultation with stakeholders will result in changes to the final capacity, operating parameters and other elements of the project.

### Transmission and Access Rights-of-Way

The applicant will study and identify viable alternatives for siting the transmission corridor and access rights-of-way. Initial consultation with the Navajo Nation, BOR and the existing transmission owners and operators will inform these studies.

### Geology

Geologic studies and a subsurface research program will be developed as part of the feasibility design. The results of this work—including seismic analysis, erosion control and other elements—will be included when we compile the license application.

### Water Source

Lake Powell will serve as the lower reservoir and water source for the project. In its preliminary screening analysis, BOR did not identify water use or reoperation of its existing facilities as insurmountable challenges, but cautioned that close consultation with affected water uses will be necessary. The screening studies gave an initial estimate of the water that would be required (as discussed above), and the project proponent has entered discussions to secure the water rights. The applicant will conduct studies of the hydrogeology and interaction pathways of surface and groundwater in the area to build understanding of the total impacts on Lake Powell water resources.

### Water Quality

The applicant will conduct further studies to understand the project's impacts on water quality. These findings will be included in the subsequent license application and National Environmental Policy Act (NEPA) review.

### Wildlife and Botanical Resources

Studies will include:

- Surveys and analyses of habitats affected by the project construction and operation, including current use by flora and fauna and options for mitigating impacts;
- Identification of issues concerning federally listed species, indicator species or other species of concern for state and federal wildlife officials;
- Identification of elements of construction and operation that could lower impacts on wildlife and botanical resources, including but not limited to timing of construction, workforce issues and alternative rights-of-way.

### Threatened and Endangered Species

Preliminary screening indicates the project would lie outside designated critical habitat for threatened or endangered species, with the possible exception of listed species in Lake Powell. Further studies will include but not be limited to:

- Surveys to determine the presence and extent of habitat for relevant species within the project boundaries;
- Surveys to determine potential impacts of the project on nearby lands and on

- listed species;
- Measures that could be taken for construction and ongoing operations that could reduce or mitigate impacts on affected species.

### Recreation

Initial consultation indicates boaters may use areas within the project boundary and near the proposed water intake. A survey will be conducted to determine the potential impacts of the project on recreational activities in and near the Glen Canyon National Recreation Area. The applicant will work closely with the Navajo Nation and other stakeholders to address their concerns and explore possibilities for enhancing recreational opportunities, including use of the upper reservoir as a recreation destination.

### Aesthetic Resources

The applicant will survey impacts on the area's visual resources in cooperation with the Navajo Nation, NPS and users of the area.

### Cultural Resources

A cultural resource inventory will be conducted by a qualified specialist to better understand impacts on historic and pre-historic resources within the project area and along roads and transmission corridors. The study will devote particular attention to previously unsurveyed areas and potential impacts on Native American sites.

### Socio-economic Impacts

The potential benefits to the local and regional economy will be studied during the license application process, including the significant impacts on jobs, increased tax revenue and the indirect benefits of supporting further development of renewable energy resources.

### Tribal Resources

The project proponent will coordinate with the State Historic Preservation Offices and Tribal Historic Preservation Officers as part of the license application process pursuant to § 106 of the National Historic Preservation Act. The applicant and its qualified consultants will identify areas of potential effects and conduct further surveys as needed in cooperation with the state and tribal Historic Preservation Offices.

### Wetlands

The applicant will conduct surveys to identify any affected wetlands in the project area and rights-of-way. We will minimize impacts in any identified wetland during

field tests and pre-construction activities, and any long-term impacts associated with construction and operation of the facility will be mitigated according to eventual conditions of licensing.

#### Commercial Viability and Project Finance

The applicant will conduct studies and initiate discussions with potential power consumers and generators, transmission owners and operators, and project partners to gauge commercial interest and potential profitability of the project.

Based on those studies, the applicant will develop a plan to finance the project.

(i) *The approximate locations and nature of any new roads that would be built for the purpose of conducting the studies:*

At present there are no roads providing access to the proposed site. The applicant may need to build a new unpaved road to conduct the initial studies, which we anticipate will follow the same route as the proposed transmission right-of-way as shown in the maps below.

The applicant anticipates the need for a permanent, possibly paved, access road during construction and future operations.

(2) *Work plan for new dam construction. For any development within the project that would entail new dam construction, a work plan and schedule containing:*

(i) *A description, including the approximate location, of any field study, test, or other activity that may alter or disturb lands or waters in the vicinity of the proposed project, including floodplains and wetlands; measures that would be taken to restore the altered or disturbed areas:*

We will use borehole drilling, test pits, sampling and in-situ and laboratory testing to investigate the dam, upper reservoir and tunnel locations. We will take measures to avoid or minimize disturbance at the drill sites, and there will be no disturbances at wetland or navigable stream locations. We do not yet have a schedule or exact location for these investigations, but all will be within the project boundaries.

(ii) *A proposed schedule (a chart or graph may be used), the total duration of which does not exceed the proposed term of the permit, showing the intervals at which studies, investigations, tests, and surveys, identified under this paragraph, are proposed to be completed.*

This proposed schedule of studies, tests and surveys is subject to change as new information becomes available. The applicant intends to file a Pre-Application Document/Notice of Intent within the three-year term of the permit.

<u>Item</u>	<u>Schedule (from beginning month to end month)</u>
Engineering feasibility	0 to 24
Transmission and access	0 to 24
Commercial viability	0 to 24
Financial planning	0 to 30
Water source	0 to 30
Environmental impacts	0 to 24
Cultural/tribal resources	0 to 24
Geology	3 to 18
Recreation/aesthetics	3 to 18
Socio-economic impacts	12 to 18

(3) *Waiver. The Commission may waive the requirements of paragraph (c)(2) pursuant to 18 CFR §385.207 of this chapter, upon a showing by the applicant that the field studies, tests, and other activities to be conducted under the permit would not adversely affect cultural resources or endangered species and would cause only minor alterations or disturbances of lands and waters and that any land altered or disturbed would be adequately restored.*

The applicant does not intend to apply for a waiver under 18 CFR §385.207.

(4) *Exhibit 2 must contain a statement of costs and financing, specifying and including, to the extent possible:*

(i) *The estimated costs of carrying out or preparing the studies, investigations, tests, surveys, maps, plans or specifications identified under paragraph (c) of this section:*

The applicant estimates completion of the studies will cost approximately \$8 million. This cost includes preparation of the PAD/NOI and draft and final license applications, including the consultations, engineering and environmental studies. To the extent possible, the applicant will use the same studies as it prepares its expected concurrent application for a BOR Lease of Power Privilege (LOPP).

(ii) *The expected sources and extent of financing available to the applicant to carry out or prepare the studies, investigations, tests, surveys, maps, plans or specifications identified under paragraph (c) of this section.*

Funding for the identified studies will come from private investment. The plan for financing the project will be developed throughout the term of the preliminary permit.

## Exhibit 3 – Project Maps

18 CFR § 4.81(d) Exhibit 3 must include a map or series of maps, to be prepared on graphic quadrangle sheets or similar topographic maps of a state agency, if available. The maps must show:

- (1) The location of the project as a whole with reference to the affected stream or other body of water and, if possible, to a nearby body of water and, if possible, to a nearby town or any permanent monuments or objects that can be noted on the maps and recognized in the field;
- (2) The relative locations and physical interrelationships of the principal project features identified under paragraph (b) of this section;
- (3) A proposed boundary for the project, enclosing:
  - (i) All principal project features identified under paragraph (b) of this section, including but not limited to any dam, reservoir, water conveyance facilities, powerplant, transmission lines, and other appurtenances; if the project is located at an existing federal dam, the federal dam and impoundment must be shown, but may not be included in the project boundary;

*Any non-federal lands and any public lands or reservations of the United States necessary for the purposes of the project. To the extent that those public lands or reservations are covered by a public land survey, the project boundary must enclose each of an only the smallest legal subdivision (quarter-quarter section, lots or other subdivisions, identified on the map by subdivision) that may be occupied in whole or in part by the project.*

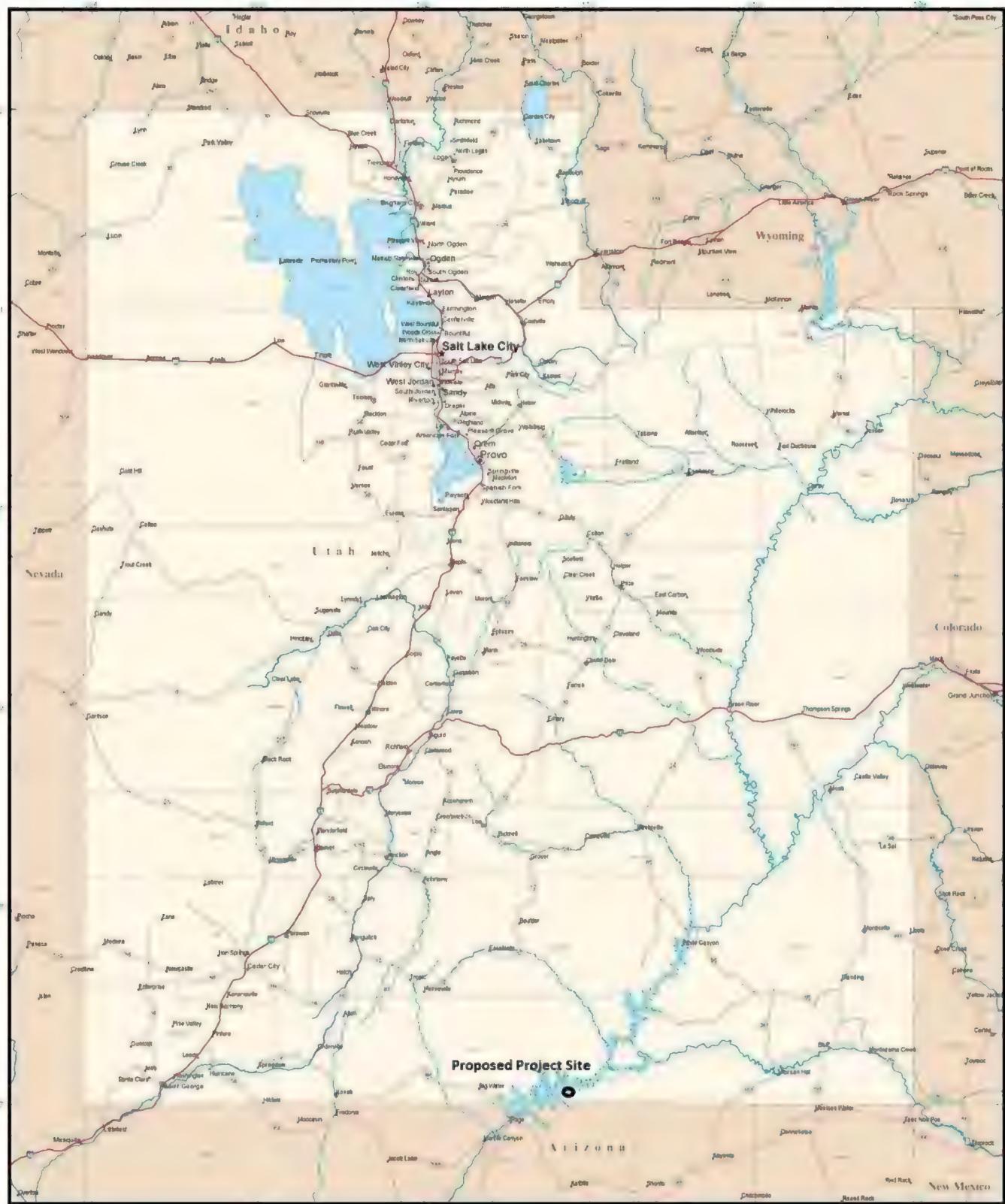
Exhibits 3.1, 3.2, and 3.3 show the location of the project and approximate project boundaries.

- (4) Areas within or in the vicinity of the proposed project boundary which are included in or have been designated for study for inclusion in the National Wild and Scenic Rivers System:

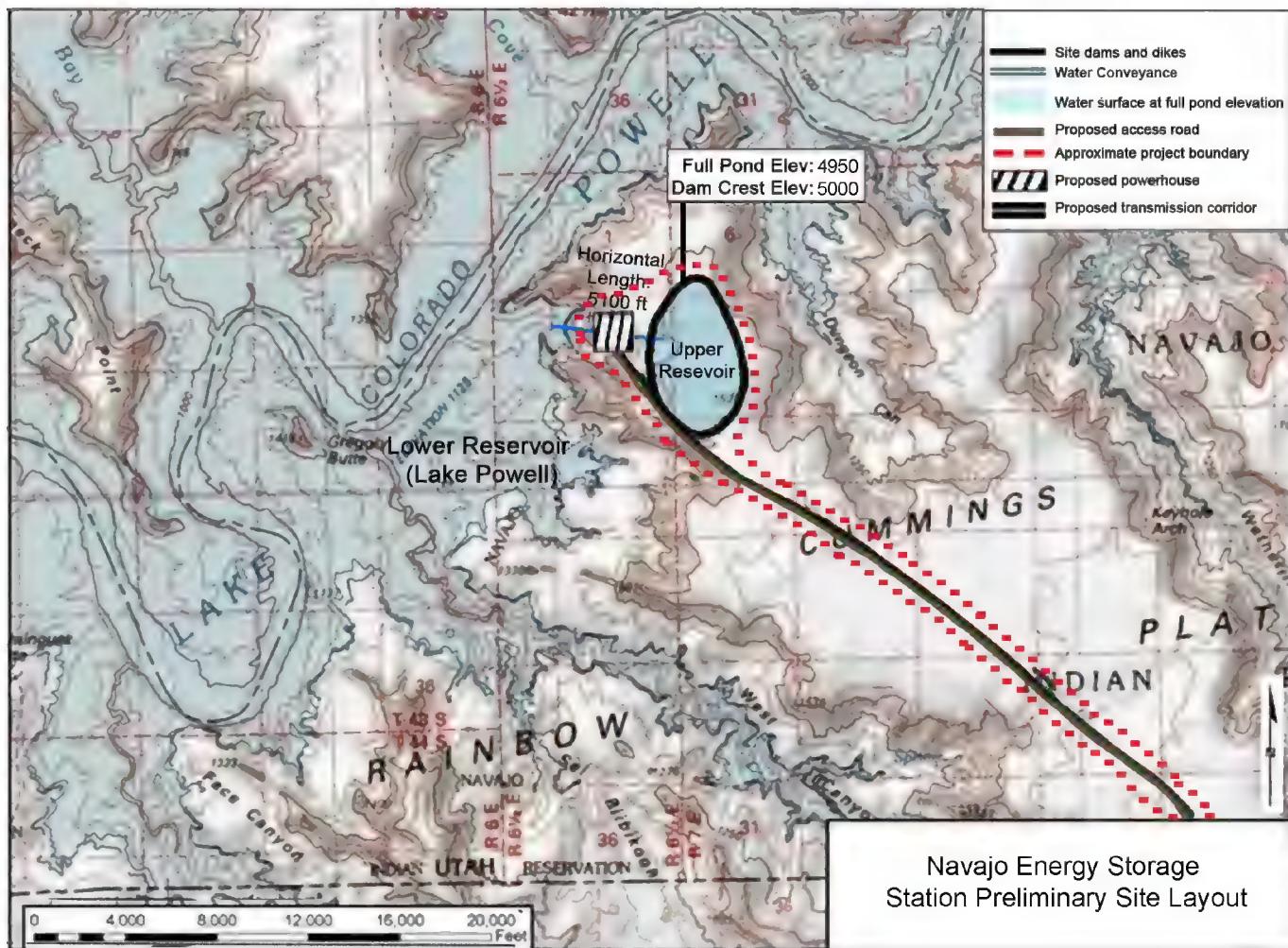
None.

- (5) Areas within the project boundary that, under the provisions of the Wilderness Act, have been:
  - (i) Designated as wilderness area;
  - (ii) Recommended for designation as wilderness area;
  - (iii) Designated as wilderness study area.

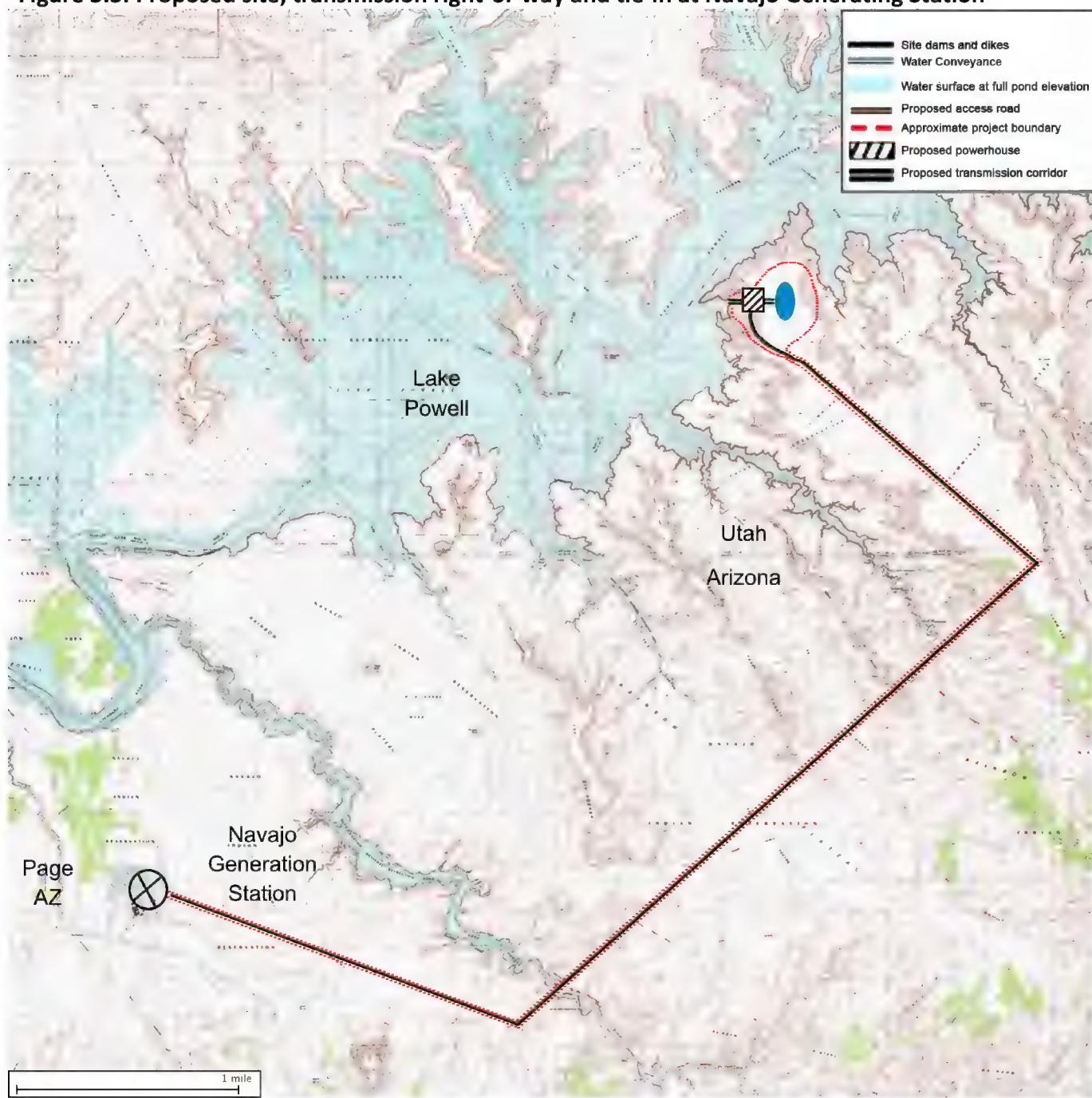
The site has not been designated or recommended for designation as wilderness area.

**Exhibit 3.1: Location of proposed project in Utah**

Source: USGS

**Figure 3.2: Proposed Navajo Energy Storage Station**

Source: USGS, Bureau of Reclamation, Navajo Energy Storage Station

**Figure 3.3: Proposed site, transmission right-of-way and tie-in at Navajo Generating Station**

Source: USGS, Navajo Energy Storage Station

**Figure 3.4: Proposed site, county border**



Form FERC-587  
 OMB No. 1902-0145  
 (Expires 10/31/2018)

### LAND DESCRIPTION

Public Land States  
 (Rectangular Survey System Lands)

1. STATE Utah 2. FERC PROJECT NO. \_\_\_\_\_

3. TOWNSHIP T43S RANGE R6.5E MERIDIAN Salt Lake

4. Check one:

License  
 Preliminary Permit

Check one:

Pending  
 Issued

If preliminary permit is issued, give expiration date: \_\_\_\_\_

### 5. EXHIBIT SHEET NUMBERS OR LETTERS

Section 6	5	4	3	2	1	
6						Exh 3.3
7	8	9	10	11	12	Exh 3.3
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

6. contact's name James Day

telephone no. 703-624-4971

Date submitted 6/28/2019

This information is necessary for the Federal Energy Regulatory Commission to discharge its responsibilities under Section 24 of the Federal Power Act.

Form FERC-587  
 OMB No. 1902-0145  
 (Expires 10/31/2018)

### LAND DESCRIPTION

**Public Land States**  
**(Rectangular Survey System Lands)**

1. STATE Utah 2. FERC PROJECT NO. \_\_\_\_\_

3. TOWNSHIP T43S RANGE R7E MERIDIAN Salt Lake

4. Check one:

Check one:

License  
 Preliminary Permit

Pending  
 Issued

If preliminary permit is issued, give expiration date: \_\_\_\_\_

### 5. EXHIBIT SHEET NUMBERS OR LETTERS

Section 6	5	4	3	2	1
Exh 3.3					
7	8	9	10	11	12
Exh 3.3					
18	17	16	15	14	13
Exh 3.3	Exh 3.3				
19	20	21	22	23	24
	Exh 3.3	Exh 3.3			
30	29	28	27	26	25
		Exh 3.3	Exh 3.3		
31	32	33	34	35	36
			Exh 3.3	Exh 3.3	

6. contact's name James Day

telephone no. ( 703-624-4971 )

Date submitted 6/28/2019

This information is necessary for the Federal Energy Regulatory Commission to discharge its responsibilities under Section 24 of the Federal Power Act.

Form FERC-587  
 OMB No. 1902-0145  
 (Expires 10/31/2018)

#### LAND DESCRIPTION

**Public Land States  
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. \_\_\_\_\_

3. TOWNSHIP T41N RANGE R9E MERIDIAN Gila Salt River

4. Check one:

License  
 Preliminary Permit

Check one:

Pending  
 Issued

If preliminary permit is issued, give expiration date: \_\_\_\_\_

#### 5. EXHIBIT SHEET NUMBERS OR LETTERS

Section 6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35 Exh 3.3	36 Exh 3.3

6. contact's name James Day

telephone no. 703-624-4971

Date submitted 6/28/2019

This information is necessary for the Federal Energy Regulatory Commission to discharge its responsibilities under Section 24 of the Federal Power Act.

Form FERC-587  
OMB No. 1902-0145  
(Expires 10/31/2018)

**LAND DESCRIPTION****Non-Public Land States  
(and Non-Rectangular Survey System Lands in Public Land States)**1. STATE AZ 2. FERC PROJECT NO. \_\_\_\_\_3. FEDERAL RESERVATION: Navajo Nation Reservation4. FEDERAL LAND HOLDING AGENCY: Department of the Interior5. Counties: Coconino

6. Check one:  
 License  
 Preliminary Permit

Check one:  
 Pending  
 Issued

If preliminary permit is issued, give expiration date: \_\_\_\_\_

7. Federal Tract(s) Identification

8. Exhibit Sheet Number(s) or Letter(s)

9422.02

Exhibit 3.4

9. contact's name James D aytelephone no. ( 703-624-4971 )date submitted 6/28/2019

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